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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/461,211 12/15/99 KOIZUMI

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EXAMINER

QM02/0522

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ART UNIT

PAPER NUMBER

3743

DATE MAILED:

05/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/461,211

Applicant(s)

Koizumi et al.

Examiner

Atkinson

Group Art Unit

3143

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 3/14/01
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-2 and 4-21 is/are pending in the application.
- Of the above claim(s) 11-12 and 18-20 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-2, 4-10, 13-17 and 21 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

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Response to Amendment

Applicant's arguments filed 3/14/01 have been fully considered but they are not persuasive.

Claims 11-12 and 18-20 remain withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102/103

Claims 1-2, 4, 13 and 21 rejected under 35 U.S.C. 102(b) as anticipated by Ikagawa or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ikagawa.

The document of Ikagawa, in Figures 1 and 3-5, discloses applicant's invention. Since the reinforcement member is the same size (i.e. length, thickness and width) as the tubes, the tube holes and the reinforcement member holes are inherently the same size. It would be logical and obvious to make the tube holes and reinforcement member holes the same size since the tubes and the reinforcement members are the same size.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention

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was made, owned by the same person or subject to an obligation of assignment to the same person.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. § 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. § 102(f) or (g) prior art under 35 U.S.C. § 103.

Claims 5-8, 10 and 16-17 are rejected under 35 U.S.C. § 103 as being unpatentable over Ikagawa in view of Kado. The document of Ikagawa discloses all the claimed features of the invention with the exception of the corrugated fin being wider than the reinforcement member. The claimed angle and dimensions are considered to be obvious design expedients in view of the angle and dimensions illustrated in Ikagawa which do not solve any stated problem or produce any new and/or unexpected result.

The document of Kado in Figures 1 and 5 discloses that it is known to have a heat exchanger having its corrugated fins wider than the reinforcement member for the purpose of increasing the heat exchangers' surface area which increases the heat exchangers' efficiency. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Ikagawa the corrugated fins being wider than the reinforcement member for the purpose of increasing the heat exchangers' surface area which increases the heat exchangers' efficiency as disclosed in Kado.

Claims 9 and 14 are rejected under 35 U.S.C. § 103 as being unpatentable over either of

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the applicant cited Japanese references ('541) or ('734) in view of Ikagawa.

The Japanese references ('541) and ('734) in the English provided Abstract discloses all the claimed features of the invention with the exception of an insertion section.

The document of Ikagawa discloses that it is known to have an insertion section on a reinforcement member for the purpose of increasing the strength of a heat exchanger and decreasing the manufacturing time and therefore cost of making the durable heat exchanger. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the applicant cited Japanese references ('541) or ('734) an insertion section on the reinforcement member for the purpose of increasing the strength of a heat exchanger and decreasing the manufacturing time and therefore cost of making the durable heat exchanger. As disclosed in Ikagawa.

Claim 15 is rejected under 35 U.S.C. § 103 as being unpatentable over Ikagawa. The claimed tolerance dimension is considered to be obvious design expedient in view of the tolerance dimension of Ikagawa which does not solve any stated problem or produce any new and/or unexpected result.

Response to Arguments

Regarding applicant's concerns directed toward the added invention, claim 11 claims a different elements' dimension than that of claim 5. Claims 11-12 and 18-20 claim different patentably distinct species.

Applicant's concerns directed toward Ikagawa are not found persuasive. The

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reinforcement hole (15) in Ikagawa does taper in the radial direction but the height direction is the direction relied upon, as shown in Figure 2 (A) and page 1, the last two lines of the second paragraph of the translation document, which teaches a matching reinforcement hole having circular-arch sections being formed at both ends thereof and a linear section being formed between the circular-arch sections. The specifically claimed angle and dimensions are considered to be obvious design expedients in view of the angle and dimensions illustrated in Ikagawa which do not solve any stated problem or produce any new and/or unexpected result.

Applicant's concerns directed toward Kado are not found persuasive. See Figure 5 in Kado where the fins (30) are wider than C-shaped reinforcing plate/element (40).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Ikagawa the corrugated fins being wider than the reinforcement member **for the purpose of increasing the heat exchangers' surface area which increases the heat exchangers' efficiency** as disclosed in Kado.

Regarding applicant's concerns directed toward the method of manufacturing steps. "Even

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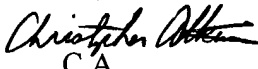
though product-by process claims are limited by and defined by the process, **determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production.** If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe* , 227 USPQ 964, 966 (Fed. Cir. 1985).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Atkinson whose telephone number is (703) 308-2603.


C.A.

May 18, 2001

CHRISTOPHER ATKINSON
PRIMARY EXAMINER